REMARKS/ARGUMENTS

The claims of this application have been corrected in response to the Examiner's objections thereto under 35 U.S.C. §112, second paragraph set forth in the Final Rejection of March 7, 2005. Reconsideration of this application in view of these amendments and the following remarks is therefore respectfully requested.

A Request for Continuing Examination, together with a request for a two-month extension of time to respond to the Final Rejection of March 7, 2005, is being submitted herewith.

Please note that both the Attorney Docket Number and the name and address of the Applicant's representative have changed. Kindly direct all future correspondence in this application to the Applicant's undersigned representative at:

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Claims 1-16 of the application were rejected under 35 U.S.C. §112, second paragraph, on the ground that it was unclear where the body of claim 1 began. In response to that rejection claim 1 has been recast in Jepson format, the preamble reciting elements old in the art (e.g., from WO 89/09648, of record), and the improvement clause reciting the inventive combination. Reconsideration and withdrawal of the rejection under 35 U.S.C. §112, second paragraph, in light of this amendment are therefore respectfully requested.

The Examiner additionally rejected claims 1-16 of the application under 35 U.S.C. §112, first paragraph, on the ground that subject matter not described in the application as filed is being claimed. Specifically, the term "only" in line 11 of claim 1 was characterized as new matter.

This rejection is respectfully traversed. The Applicant has expressly disclosed an embodiment of the invention comprising a porous membrane on the gas outlet side only of the claimed filter body in the application as filed. Thus, the Applicant recites, in referring to Fig. 5 at page 15, lines 24-27 of the specification:

> "In this figure, the membrane 20 is formed by a number of particles 21, which are positioned in the outer parts of the gas outlet side 22 of the filter body ....The membrane 20 preferably only covers the outlet side 22." (emphasis added).

Moreover, as the Applicant has disclosed, this embodiment of the invention has particular performance advantages over known filter bodies incorporating membranes on the inlet side of the filter, particularly if in further accordance with the invention a catalytically active material is to be provided within the voids or pores of the filter:

> "Membrane coating is known per se in the industry only on the inlet side of the filter. This known method prohibits the soot from penetrating into the wall structure and achieving the important high surface area contact with the active catalyst coating to promote oxidation".

In summary, the application as filed clearly discloses both the embodiment of the invention now claimed, and the particular advantages of that embodiment over the prior art. Accordingly reconsideration and withdrawal of the rejection of claims 1-16 under 35 U.S.C. §112, first paragraph, are respectfully requested.

The Examiner further rejected claims 1-5, 7, and 10-16 of the application under 35 U.S.C. §102 as anticipated by EP 0 736 503 to Kondo et al. (Kondo). Kondo was cited to show a filter body incorporating a catalyst in the filter walls and a membrane on the inlet and/or outlet side of the filter. Reconsideration and withdrawal of this rejection is respectfully requested for the reason that Kondo fails to teach or suggest a filter with a membrane on the filter outlet side only and a catalyst within the walls of the filter.

Certainly there is no inherent disclosure by Kondo of such a filter. Fig. 4, for example, shows a catalyst coating on both inlet and outlet sides of the filter, while Fig. 18 shows a catalyst coating on the inlet side only. Thus, as acknowledged by the Examiner, Kondo is clearly silent as to whether the coating is applied to the outlet side only.

Moreover, the location of the coating in Kondo is clearly a matter of indifference. These two coating locations are not differentiated by Kondo in describing his invention; thus they are clearly treated as equivalent. To the contrary, however, as the Applicant has discovered and disclosed, membrane location is not a matter of indifference in catalyzed filters, since two locations are not equivalent. That is because the application of a membrane to the outlet side only of the filter allows full access to the catalyst by the soot in the exhaust stream.

For all of the above reasons it is respectfully submitted that the subject matter of claims 1-5, 7, and 10-16 of the application is not anticipated by Kondo under 35 U.S.C. §102, and therefore that those claims should be allowed.

The Examiner next rejected claims 1-5, 7, and 10-16 of the application as unpatentable over Kondo taken with U.S. Patent No. 4,857,089 to Kitigawa et al. (Kitigawa). Kondo is again relied on to show a filter with a catalyst coating, while Kitigawa discloses coating selected portions of either or both of the inlet or outlet sides of a filter wall, over sections of the walls beginning at the outlet end of the filter, to reduce gas flow and soot buildup on the coated portions of the filter.

Kitigawa, like Kondo, fails to teach or suggest a porous filter body incorporating the combination of a catalyst disposed within the voids or pores of the body and a membrane layer disposed only on the outlet side of the filter. Further, as in Kondo, whether the wall coatings of Kitigawa are positioned on inlet or outlet wall portions is a matter of indifference. Most importantly, wherever the coating is provided, it is provided only on a portion of the filter walls.

Coverage of the full lengths of the filter walls in Kitigawa is avoided because it results in filter damage (Reference Example 13), whereas the Applicant's and Kondo's coatings are applied to the full lengths of the filter walls in order to secure the gas treatments in each case required. Thus substituting the Kitigawa coatings for the coatings on the Kondo filters would result in structures failing to meet the functional requirements of Kondo, and which would in addition fail to provide a distribution of catalyst within the filter walls as required by the Applicant.

For the above reasons, it is respectfully submitted that the combination of Kondo and Kitigawa fails to teach or suggest the subject matter of claims 1-5, 7, and 10-16 of the application, and therefore that those claims are clearly patentable over the combined disclosures of those references.

Finally, the Examiner has rejected claim 6 of the application under 35 U.S.C. §103 as unpatentable over the combination of Kondo alone or with Kitigawa, taken further in view of

U.S. Patent No. 5,041,407 to Williamson, as well as claims 8 and 9 of the application as unpatentable over the combination of Kondo alone or with Kitigawa taken with WO 89/09648 ('648). These rejections are respectfully traversed for the reasons discussed above. Thus neither of the added references supplements the teaching of the principal references in a manner that would teach or suggest a porous filter body with a catalyst disposed within the pores of the body and a membrane layer disposed only on the outlet surfaces thereof for improved catalytic performance.

The citation of Williamson was to show the use of substances such as alumina and barium in a catalyst washcoat. However, like Kondo and Kitigawa, Williamson fails to disclose a wall flow filter comprising a catalyst coating in combination with a thin, small-pore membrane on the gas outlet side of the filter. If Williamson, Kitigawa and Kondo together are therefore taken to suggest a catalyst washcoat with a stabilizing barium addition, the combined references still fails to suggest a catalyzed filter with an outlet side membrane in accordance the invention.

The '648 disclosure was introduced to show wall flow filter bodies made from SiC particles within the size range of 75-170μm, sintered to form wall flow filters having a porosities of 50-90%. Given that teaching, however, the combination of Kondo, Kitigawa and WO '648 still suggests at most a silicon carbide wall flow filter with a conventional catalyst washcoating. No teaching or suggestion to provide a catalyzed wall flow filter featuring a thin, small-pore membrane on the gas outlet side only of the filter is apparent. Accordingly, the subject matter of claims 6, 8 and 9 of the application is clearly patentable over the combination of Kondo and Kitigawa with either of Williamson and WO '648.

In summary, all of claims 1-16 of this application are believed directed to an invention neither taught nor suggested by the art of record in this case, or any combination thereof. Therefore, the claims, specification and drawings in this case now being in full compliance with 35 U.S.C. §112, it is respectfully submitted that this case is now in condition for allowance, and such action is courteously solicited.

A request for a two-month extension of time to respond to the Final Rejection herein is being submitted herewith. Applicants believe that no further extension of time is necessary to make this Reply timely, but contingently request that the Office grant such time extension pursuant to 37 C.F.R. § 1.136(a) as is necessary to make this Reply timely, if in fact such an extension is required. In that contingency the Office is hereby authorized to charge any necessary extension fee or surcharge to the deposit account of Corning Incorporated, Deposit Account 03-3325.

Kindly direct all future correspondence in this case to the Applicant's undersigned representative.

Respectfully submitted,

DATE: 7/20/05

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